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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,258	09/30/2003	Koichiro Tani	4635-002	2067
22429 7590 08/22/2007 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314			EXAMINER HAND, MELANIE JO	
			ART UNIT 3761	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/673,258

Applicant(s)

TANI, KOICHIRO

Examiner

Melanie J. Hand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-10,12,13,15,17,19,20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10,12,13,15,17,19,20,22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 3-5, 7-10, 12, 13, 15, 17, 19, 20 and 22-26 have been considered but are moot in view of the new ground(s) of rejection.

Briefly with respect to applicant's additional arguments regarding the rejections of the claims over Robles, Applicant is referred back to the Office action mailed March 9, 2007, where the motivation to modify Robles to meet the claim limitations of claim 1 is stated in detail. In summary, Robles teaches varying bonding patterns which allow for a more customized fit to various users, and said varying patterns would yield separate fixing and joining parts (as they would constitute all or part of the bonding points of pattern) separated in the transverse direction from each other, as that is the principal direction of the waist and thigh panels of Robles that together define the side flaps.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-5, 7-10, 12, 13, 15, 17 and 19, 20 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robles et al (U.S. Patent No. 6,004,306).

With respect to **Claims 1,15**: Robles teaches diaper 20 comprising containment assembly 22 further comprising a liquid-pervious topsheet 24, a liquid-impervious backsheet 26 absorbent core 28 disposed between said topsheet and said backsheet, extensible side panels 30 with proximal edges 80 and distal edges 82 (Fig. 1) (Col. 4, lines 25-36). Robles teaches that side

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panels 30 are bonded to containment assembly 22 at edge 80 in a bonding area of varying size and pattern (Fig. 1) (Col. 12, lines 24-31, 60-62). As can best be seen from Figs. 1-3, tape fasteners 40 are disposed on a distal outer edge of side panels 30 that is laterally outward from an inner edge of side panels 30. Robles teaches a pair of fasteners 40, wherein each of the fasteners is disposed at a region of a said side flap 30 extending outwardly in the width direction away from the bonding-free region in which the side flap 30 is free of direct attachment to the diaper body. Robles teaches that extensible side panels are comprised of waist panel 36 and thigh panel 38 of identical size that are bonded to edge 56 of containment assembly 22, therefore there exists first and second joint parts located in an upper and lower region, respectively, of distal edge 80. (Fig. 1) (Col. 10, lines 24-27, 48-50, Col. 12, lines 59-62) As taught by Robles in the Abstract, the side panel comprising said waist and thigh panels forms a multi-directional extensible pattern wherein the waist panel provides tension (i.e. a first tensile force) toward the wearer's waist and the first joining part, and the thigh panel expands and contracts (a second tensile force) to maintain a dynamic fit around the wearer's legs. Thus the second tensile force is directed toward the user's legs and thus the second joining part. This dispersion of a pulling force into first and second tensile forces is taught by Robles as occurring during wear. Therefore a pulling force which occurs when the fastener fixed to each of the side flaps is pulled transversely outwardly in use will necessarily also result in the same dispersion of the pulling force into first and second tensile forces along the waist and thigh panels, respectively. Robles teaches that this provides an enhanced fit of the diaper on a wearer in use.

Robles does not explicitly teach separate side flap fixing parts and joint parts. The teaching by Robles of bonds of varying size and patterns makes possible separate side flap fixing parts and joint parts with a bond-free region disposed therebetween with a reasonable expectation of success, and either of fixing parts or joint parts can be positioned inward with

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respect to one another along a transverse direction of said diaper. Robles teaches varying the positions and dimensions of the bonding areas so as to effect a different fit for the user, therefore placing the joining parts and fixing parts (or two other discrete bonding sites) at a transverse distance from each other wherein one is placed inwardly of the other affects the tensile modulus and thus can be used to alter the tensile modulus to provide a customized fit, therefore it would be obvious to one of ordinary skill in the art to place one of the fixing part and the joint part inwardly of the other. With respect to claim 18, in the bond-free region, the respective side flap would be free of direct attachment to the diaper body. Therefore it would have been obvious to one of ordinary skill in the art to identify a pattern comprising at least two separate bond points or lines of either equal or varying length as defining fixing parts and joint parts, respectively, said joint parts or fixing parts thus having either equal or differing lengths.

With respect to **Claim 3**: Robles teaches that extensible side panels are comprised of waist panel 36 and thigh panel 38 of identical size that are bonded to edge 56 of containment assembly 22, therefore there exists first and second joint parts located in an upper and lower region, respectively, of distal edge 80. (Fig. 1) (Col. 10, lines 24-27, 48-50, Col. 12, lines 59-62) The joint parts will have substantially identical size as well given the identical size of the panels 36 and 38. (Col. 12, lines 21,22)

With respect to **Claims 4,12,13**: Robles teaches that extensible side panels are comprised of laminates of elastomeric nonwoven materials with a nonwoven coverstock material sandwiched therebetween. (Col. 13, lines 62-66)

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With respect to **Claim 5**: As can best be seen from any of Figures 1-3, Robles teaches that fasteners 40 are disposed at a substantial center vertically along the outer edge of each of side panels 30.

With respect to **Claim 7**: Robles teaches that the side panel 30 is joined to the containment assembly 22 at the first and second joint parts and a fixing part (as part of the bonding pattern taught by Robles) by heat bonding (Col. 13, lines 4-8), which also therefore teaches thermal bonding for the constitution of any fixing or joint part bonds.

With respect to **Claim 8**: Robles teaches by reference to U.S. Patent No. 3,848,594 to Buell that tape fasteners 40 are comprised of a fastening layer or surface bonded to a back surface. (Col. 20, lines 64-66)

With respect to **Claims 9 and 10**: Robles teaches that waist panel member 37 and thigh panel member 39 are initially joined separately to the diaper 20 (Fig. 5) (Col. 13, lines 31-36). Since Robles also teaches that attachment of side panels 30 to distal edges 80 is intermittent (Col. 13, lines 8-10), Robles teaches attachment areas of differing size for the waist and thigh panels 36 and 38.

With respect to **Claims 15,17**: Please see the rejections of claims 1 and 3 as these rejections collectively address all of the limitations of claims 15 and 17. Since Robles teaches that the bonding areas can vary in size the lengths and widths of each of either fixing part bonds or joint part bonds can be varied to result in a change in elastic modulus to the waist and thigh panels 36,38 and thus result in adjusted fitness around the waist of a user. Since Robles also teaches

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that waist panel 36 may differ in size from thigh panel 38, the joint parts would have to be adjusted in length and width to accommodate the differing lengths and thus their respective positions would necessarily have to be adjusted. Robles teaches fixing a fastener 40 to an outer end of a side flap 30 in a region which extends outward in the width direction from a bonding free region of the side flap 30, wherein the side flap 30 is free of direct attachment to the diaper body in the bonding free-region. As can be seen in Fig. 12, Robles teaches first and second joint parts that are spaced from each other in a longitudinal direction by the bonding free region.

With respect to **Claim 19**: Since Robles also teaches that waist panel 36 may differ in size from thigh panel 38 but does not explicitly teach that one of the first or second joint parts is closer to the respective side edge of the diaper body than the other, it would be obvious to one of ordinary skill in the art to move either of the first or second joining parts to compensate for the difference in size to ensure an accurate fit about the wearer with the tensile forces being appropriately distributed.

With respect to **Claim 20**: As can be seen in Fig. 1, the fixing parts of each flap extend continuously along substantially the entire length of the respective side flap. As can also be seen in Fig. 1, and owing to the shape of each panel 36,38, a length of a joining part of each flap is necessarily shorter than the length of the respective fixing part, but Robles does not explicitly teach that a length of the each of said first and second joint parts is shorter than half of that of the fixing part. It would be obvious to one of ordinary skill in the art to modify the length of a joining part so as to be equal to half of the length of the fixing part, as this limitation represents an optimization of the relative length of the joining parts with respect to the fixing part of the

respective flap, and since Robles teaches that the bonding areas can vary in size the lengths and widths of each of either fixing part bonds or joint part bonds can be varied to result in a change in elastic modulus to the waist and thigh panels 36,38 and thus adjustable fitness around the waist of a user.

With respect to **Claims 22,23**: With respect to claim 22, Robles does not teach explicitly that the second joint part of each side flap overlaps the leg elastic elements, however since Robles teaches that the width of the joint parts as part of a bonding pattern can be modified to provide a different fit for a user, it would be obvious to one of ordinary skill in the art to either modify the width of the joint part such that said joint part overlaps at least one of the leg elastic elements 32 or, with respect to claim 23, modify the width so that the first joint part is located on an imaginary extension of at least one of the leg elastic elements, as the modification would still result in a different fit even if the joint parts do not physically overlap the elastic elements.

With respect to **claim 24**: Robles teaches a disposable diaper, comprising a diaper body 20 having a top sheet 24, a back sheet 26, and an absorbent body 28 enclosed between the top sheet 24 and the back sheet 26; a pair of side flaps 30 fixed to the diaper body 20; and a pair of fasteners 40; wherein the diaper body further has a pair of side edges 82 extending in a longitudinal direction of the diaper body. Each of the side flaps 30 extends in a width direction of the diaper body and has an inner end 80 being disposed inboard of a respective one of the side edges of the diaper body and an outer end being disposed outboard of the respective side edge of the diaper body, and each of the fasteners 40 is fixed to the outer end of one of the side flaps 30; wherein each of the side flaps 30 is fixed to the diaper body at a fixing part being arranged adjacent and along an inner edge of the inner end of the respective side flap 30. A first joint that

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is part of a bonding pattern taught by Robles for bonding the side flaps 30 to the diaper body is located at an upper part of the inner end of the respective side flap, and a second joint part is located at a lower part of the inner end of the respective side flap. The fixing part as part of a said bonding pattern taught or suggested by Robles is spaced, in the width direction of the diaper body, inwardly from the joint parts by a bonding-free region in which the side flap is free of direct attachment to the diaper body. The second joint part as part of the bonding pattern suggested by Robles is spaced in the longitudinal direction from the first joint part by a section of the bonding-free region shown in Fig. 1 as the area of the respective side edge that is between the bottom edge of waist panels 37 and the top edge of thigh panels 38. Each of the fasteners 40 is disposed such that the fastener is not co-elevational in the longitudinal direction with any portion of the first joint part or any portion of the second joint part. (Fig. 12) As taught by Robles in the Abstract, the side panel comprising said waist and thigh panels forms a multi-directional extensible pattern wherein the waist panel provides tension (i.e. a first tensile force) toward the wearer's waist and the first joining part, and the thigh panel expands and contracts (a second tensile force) to maintain a dynamic fit around the wearer's legs. Thus the second tensile force is directed toward the user's legs and thus the second joining part. This dispersion of a pulling force into first and second tensile forces is taught by Robles as occurring during wear. Therefore a pulling force which occurs when the fastener fixed to each of the side flaps is pulled transversely outwardly in use will necessarily also result in the same dispersion of the pulling force into first and second tensile forces along the waist and thigh panels, respectively. Robles teaches that this provides an enhanced fit of the diaper on a wearer in use.

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With respect to **claim 25**: Each of the fasteners 40 is disposed such that an entirety of the fastener 40 is co-elevational in the longitudinal direction with the bonding-free region's section that separates the first and second joint parts in the longitudinal direction. (Fig. 12)

With respect to **claim 26**: Each of the side flaps 30 extends continuously in the longitudinal direction from the first joint part, across the bonding-free region's section that separates the first and second joint parts, and to the second joint part, without being interrupted by any bonding line or edge of the side flap. (Fig. 11, Col. 2, lines 47-49)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie J. Hand whose telephone number is 571-272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie J Hand
Examiner
Art Unit 3761

August 18, 2007

KEVIN C. SIRMONS
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Kevin C. Sirmons", written in a cursive style.